

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A fluid processing disposable set comprising:
 - a fluid port;
 - a variable-volume chamber in fluid communication with the fluid port, the chamber defined by a rigid wall and an elastic wall; and
 - a rigid bottom surface limiting, at least in part, the upward movement of the elastic wall and comprising a perforate interior wall located within the chamber, the perforate interior wall rigid bottom surface being substantially flat;
 - the elastic wall formed by a convoluted diaphragm with a region of convolution, the elastic wall region substantially adjacent overlying the perforate interior wall rigid bottom surface when in an unstretched state.
2. (Original) A fluid processing disposable set according to claim 1 further comprising:
 - a rotary seal coupled to the fluid port, the rotary seal fluidly coupled to the chamber.
3. (Cancelled)
4. (Currently Amended) A fluid processing disposable set according to claim 1, wherein the convoluted diaphragm has at least one fold.
5. (Previously Amended) A fluid processing disposable set according to claim 4, wherein the convoluted diaphragm has a plurality of folds, the folds located symmetrically about an axis.

6. (Currently Amended) A fluid processing disposable set comprising:
a fluid port; ~~and~~
a variable-volume chamber in fluid communication with the fluid port, the chamber ~~and~~ defined by a rigid wall and an elastic wall, the elastic wall sealed only at a mounting position on the rigid wall and formed by a shaped diaphragm; and
a rotary seal coupled to the fluid port, the rotary seal fluidly coupled to the chamber, wherein the shaped diaphragm is essentially planar in an unstretched position, the diaphragm varying in thickness outside immediate vicinity of the mounting position.
7. (Original) A fluid processing disposable set according to claim 6, wherein the thickness is constant at locations equidistant from an axis.
8. (New) A fluid processing disposable set according to claim 1, wherein the rigid bottom surface further comprises a portion of the rigid wall.